The Centre for Railway Information Systems oversees the computer and IT systems of Indian Railways—one of the largest government-managed rail carriers in the world. The center offers consulting and IT support services to the rail organization.

**Challenge**
The Centre for Railway Information Systems (CRIS) is the organization dedicated to managing the IT systems of India Railways—one of the world’s largest rail carriers. India Railways was struggling with the inefficiency of its manual employee scheduling systems. Far too often, train engineers and guards waited for hours to receive their daily assignments and, once assigned, were forced to work extra hours because adequate relief staff had not been properly scheduled.

**Solution**
CRIS, leveraging IBM software, deployed a crew management system that automatically evaluates employee skill sets against established train schedules to determine optimal staff assignments. And, because the system tracks the locations of working employees in real time, managers can easily shuffle assignments to accommodate any issues (such as a tardy or absent employee). Employees, in turn, are dispatched their orders via text messages as well as in-terminal kiosks.

CRIS developed this crew management system internally, leveraging IBM Rational®, IBM WebSphere®, IBM Tivoli®, IBM DB2®, IBM System x® and IBM System p® technology.

**Benefits**
- Balances scheduling efforts more efficiently by offering managers clear, real-time insight into the skill sets and locations of employees
- Automates employee assignments, avoiding staffing shortages and overtime expenditures even if employees are late to work or absent
- Encourages increased public safety by controlling rail access with biometric login systems and by controlling shift lengths to prevent overworking staff